

ABSTRACT OF THE DISCLOSURE

- [0066] Embodiments of the present invention provide a system and method for providing non-blocking routing of optical data through an optical switch fabric.
- [0067] The optical switch fabric can include an optical switching matrix with a plurality of inputs intersecting with a plurality of outputs. A path switch can be located at each intersection that is operable to switch data arriving on an input to a particular output. The path switches can be configurable to create a plurality of unique paths through the optical switching matrix to allow routing in a non-blocking manner.
- [0068] Another aspect of the present invention can provide a system and method for providing non-blocking routing through an optical cross-bar switch. The optical cross-bar switch includes a plurality of input links, a plurality of output links and a plurality of switching elements. Each switching element can include a plurality of path switches connecting each of the input links to at least one of the output links and the plurality of switching elements can be configured to create a plurality of unique paths through the optical cross-bar switch.